

COMBINATION HIRING / OVERTIME PROGRAM
HOW TO BEST MEET APPROVED STAFFING LEVELS FOR
THE WEST METRO FIRE PROTECTION DISTRICT

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Lakewood, Colorado

An applied research project submitted to the National Fire Academy as part of the
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The West Metro Fire Protection District (the District) has adopted the National Fire Protection Association 1500 Standard. The increased hiring brought on by the standard's adoption has placed pressure on the budget. A solution to relieve this pressure must be found to maintain existing programs.

The purpose of this applied research project is to determine whether, and at what point, the District should establish a program to utilize firefighters working overtime, as opposed to the continuation of hiring new personnel, to most effectively achieve the desired staffing levels.

Historical research of literature and staffing records were used to support the report. An action methodology was used to develop a recommendation to reduce costs and still achieve staffing goals.

These questions were asked:

1. Would an overtime program, rather than hiring, be beneficial to the District in achieving its operational staffing levels?
2. At what staffing level would it be advantageous for the District to implement an overtime program?
3. Should the overtime program be mandatory or voluntary for the firefighters of the District?
4. Would the firefighters of the District be supportive of an overtime program?

The problem statement was identified. Research of literature and staffing levels were conducted and cost evaluations were formulated to determine at what point the use of overtime would be beneficial to the District. This procedure determined that a 17% staffing overhead was needed by the District. Leaves reducing available staffing by 15% should be covered by overtime personnel.

The recommendations offered are that the District be more diligent in tracking leaves and that 33
the work towards 1500 compliance continue; an overtime program be used to cover any leaves causing
overhead to drop more than 15%; and the Staffing and Financial Officers should report the benefits of
the overtime program to the Chief of Department yearly.

TABLE OF CONTENTS

	33
ABSTRACT.....	2
TABLE OF CONTENTS	4
INTRODUCTION.....	5
BACKGROUND AND SIGNIFICANCE.....	6
LITERATURE REVIEW.....	8
PROCEDURES	12
RESULTS	14
DISCUSSION	19
RECOMMENDATIONS	22
REFERENCE LIST	25
APPENDIX A (STAFFING ANALYSIS)	
APPENDIX B (OVERTIME SURVEY)	

INTRODUCTION

33

The West Metro Fire Protection District Board of Directors adopted the National Fire Protection Association (N.F.P.A.) 1500 Standard, The Fire Department Occupational Safety and Health Program, in 1997. As a part of this adoption, Chief of Department George Goldbach established a time-line for compliance with the staffing standard for the year 2006.

Today, approved line staffing for the West Metro Fire Protection District (herein referred to as the District) is 243 officers, engineers and firefighters, or, 81 per shift. This number of career personnel staff 16 pieces of fire apparatus (engines, telesquirts, heavy rescue, tower, 7 ambulances, and 2 district command vehicles). To achieve the minimum of four persons per fire apparatus (ambulances excluded) the District projects an increase in its staffing level by three firefighters each year, to reach its time-line goal of 264 firefighters. Any additional hiring necessary to staff new stations or added apparatus is not included in this program.

The increase in staffing to meet the N.F.P.A.1500 Standard, and hiring brought on by growth in the District's Emergency Medical Services Division and administrative positions, has placed increasing pressure on the department's budget. Further hiring will only exacerbate the financial strain and may cause the deletion of other District programs. This problem may also force the Board of Directors to abandon the established N.F.P.A. staffing. Finding a financially feasible solution to this dilemma will allow the West Metro Fire Protection District to achieve the minimum of four firefighters per unit staffing level, thereby increasing the safety and efficiency in service to the public, while maintaining current programs and allowing the department the resources to provide new services.

The purpose of this applied research project is to determine whether, and at what point, the 33 West Metro Fire Protection District should establish a program to utilize firefighters working overtime, as opposed to the continuation of hiring new personnel, to most effectively achieve the desired level of staffing.

A historical research methodology, through literature and departmental finance records review and staffing analysis, was chosen to clarify the financial impact of the District's hiring practices and operational needs. An action methodology was used to develop a recommended program to reduce the cost of hiring and still achieve staffing goals.

The research questions for this project are:

1. Would an overtime program, rather than hiring, be beneficial to the West Metro Fire Protection District in achieving the department's operational staffing levels?
2. At what staffing level would it be advantageous for the District to implement an overtime program?
3. Should the overtime program be mandatory or voluntary for the firefighters of the District?
4. Would the firefighters of the department be supportive of an overtime program?

BACKGROUND AND SIGNIFICANCE

The West Metro Fire Protection District is a career fire department providing fire, rescue, and emergency medical services to an estimated 220,000 residents in a 96 square mile area. The District encompasses the township of Morrison, unincorporated southeast Jefferson County, and the city of Lakewood, Colorado. The District was established in 1995, through the consolidation of the Bancroft and Lakewood Fire Protection Districts, following four years as a Fire Authority. This merger

made the District the fourth largest fire department in Colorado, with 271 uniform and 40 civilian employees working from 14 fire stations, a communications center, and an administrative office. The department is funded primarily by a mill levy on property and supplemented by revenue from an advanced life support (ALS) transport system and other fees and user taxes.

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In 1997, the West Metro Fire Protection District Board of Directors adopted the N.F.P.A. Standard 1500, The Fire Department Occupational Safety and Health Program. As required, the Chief of Department, George Goldbach, presented a time-line for compliance with the Standard. This time-line included bringing engine, rescue and tower apparatus to a minimum staffing level of four. As a result, 27 new firefighters needed to be hired, over and above replacement hiring for retirement and other separations. The program called for employing a minimum of three additional firefighters per year and compliance with the Standard in the year 2006.

The consolidation election which formally merged the Bancroft and Lakewood Fire Protection Districts included a mill levy increase that helped provide for the first year's hiring program and the construction of a new fire station. However, unanticipated growth since 1995, and the initiation of new programs requiring additional expenditures, has placed a strain on the District's budget. While the department is realizing the increased staffing, continuation of the hiring program may cause the loss or reduction of other programs in the department. The first of these reductions is seen in decreased funding in the proposed 1999 budget for the fire safety trailer (causing it to be parked for most of the year) and the loss of allocated dollars over the previous year in the Community Outreach Division.

This research relates to the subject of financial management in the fire service. The focus is specifically on the need for financial planning as it pertains to formulating courses of action to meet the

department's vision and mission. It assesses current programs, services, and resource needs. This study also determines future programs, services, and the resources that will be required to deliver them. 33

All department programs compete for funding from revenue that is in a slow growth rate period. To meet the mission of the fire department and to continue to provide the established programs, it is necessary to be creative and willing to examine different ways of administering and allocating restrictive budgets.

The largest portion of the budget is allocated to payroll and benefits. Hiring costs, with its components of recruitment, testing, training and administrative costs, is ever increasing. The intent of this research is to determine if the development of an overtime program, using firefighters currently on the payroll, will reduce the cost of meeting the staffing standards established by the N.F.P.A. 1500 Standard and adopted by the District's Board of Directors.

LITERATURE REVIEW

In 1997, the West Metro Fire Protection District Board of Directors adopted the N.F.P.A. 1500 Standard, The Fire Department Occupational Safety and Health Program. The adoption of this Standard requires that the authority having jurisdiction shall set a date, or dates, for achieving compliance with the requirements of this Standard and shall be permitted to establish a phase-in schedule for compliance with specific requirements of this Standard (National Fire Protection Association, 1998). Chief of Department George Goldbach established a time-line that required the hiring of three firefighters per year, bringing the department to full staffing by the year 2006.

The District has also experienced tremendous growth since its merger in 1995. This growth has been fueled by a strong economy generating new housing and businesses. The District's response was the addition of a 100 foot aerial, the completion and staffing of a new fire station in the fastest growing

section of the District, the design of the new EMS/Safety Division, and additional staffing for the Fire 33 Prevention and Community Outreach Divisions. These programs required the addition of 1 assistant chief, 3 captains, 8 lieutenants, 3 engineers, 12 firefighters, and 12 civilian positions. Compounding the staffing problem, a pension program allowing firefighters at age 50, with 20 years of service, to buy out their pension, has caused an acceleration of retirements that were not previously anticipated. These changes in the service levels and demographics of the District have resulted in unexpected and unprecedented annual hiring by this department. At present, 150 firefighters in the 271 member department have five, or less, years of experience.

Finally, the District is seeing tremendous pressure placed on its budget. According to Mr. Scott Myers, Finance Manager for the West Metro Fire Protection District, a great amount of this pressure is from the additional hiring by the department in order to meet the 1500 Standard (personal communication, September 16, 1998). To further compound the budget “squeeze”, the Colorado State Constitution has a provision restricting a government’s annual budget growth to 5.5% over the previous year. There is also a law that residential properties may only provide 45% of a government’s budget.

In the past few years the District has strived to meet the District’s staffing mandates by hiring. But hiring is an expensive program. Hiring costs include all costs associated in advertising positions, screening applicants to evaluate their qualifications, and processing successful applicants who have been offered jobs (Flanagan, Smith, and Ehrenberg, 1984). Furthermore, firms incur at least three types of training costs for these new employees: 1) The explicit cost of employing individuals to serve as trainers and the cost of materials used up during the training process; 2) The implicit or opportunity costs of the trainees’ time (while individuals are undergoing training they are not producing as much output as they

could if all of their time was devoted to production activities); and 3) the opportunity costs of using capital equipment and experienced employees to do the training in less formal training situations (Flanagan et al., 1984). 33

We must also consider benefit packages which include legally required social insurance contributions and privately provided benefits. Examples of legally required benefits are payroll-based payments employers must make to fund programs that compensate workers for unemployment (unemployment insurance), injury (workers' compensation), and retirement (old-age, survivors disability, and health insurance or "Social Security"). Examples of privately provided benefits are holiday pay, vacation and sick leave, private pensions, and private health and life insurance. These are called quasi-fixed costs (Flanagan et al., 1984).

One method to reduce these hiring expenses is to use an overtime program to meet the staffing needs of the District. In 1997, Katherine Hanley, Chair of the Fairfax County Board of Supervisors, stated that it's far more cost-effective to use overtime judiciously, than train new officers (Perlman, 1997). Phoenix City Manager, Frank Fairbanks, says that in today's world, they think they save money by staffing less (Perlman, 1997). Overtime has risen dramatically in the private sector, driven both by its appeal to cost cutting businesses and to needy workers. Among manufacturing employees, paid overtime hours rose substantially after the recession (of the early 1980's) and, by the end of 1987, accounted for the equivalent of an additional five weeks per year (Schor, 1991).

Ellen Perlman (1997) states that overtime is one of the trickiest issues facing state and local governments. While there are cases of rampant abuse and misuse, overtime remains a key way of controlling staff levels to ride out revenue roller coasters. It is also a means of parsing out labor to meet needs that ebb and flow with seasons, emergencies or unusual work situations. In many cases, paying

employees time-and-a-half to stay at their desks, or assigning officers to patrol the streets past their standard 40 hours, is the most efficient and economical option for managers. When there's a crunch, departments can count on having qualified people around to do a job. This is particularly helpful in light of the lacking experience levels recognized within the District today. 33

Naturally, there are drawbacks to establishing an overtime program to meet staffing needs. Once overtime becomes routine, it's hard to cut, and often even harder to control. It becomes, in effect, a way of life. Putting a stop to it is akin to reducing an employee's pay (Perlman, 1997). Additionally, there is a concern about overtime abuse. Ms. Perlman (1997) writes that a department must do a good job of supervising and tracking overtime. Employees, for instance, shouldn't be the ones deciding they need to put in extra hours. If no one's watching, they could extend their regular work into overtime hours, start doing work that doesn't need to be done, or even create work.

Another problem identified by Ms. Perlman (1997) is that it is not just money that's at stake when overuse of overtime is part of the daily routine. Employees may become physically or mentally less capable if they work long hours for extended periods of time. "Beyond twenty percent (20% of normal work hours), it becomes very problematic," says Jack Pfister, who served as General Manager for the Salt River Project, a utility in Arizona. "Employees can do it for a short period of time during an emergency. To do it on a planned basis is not good for the employee or employer (Perlman, 1997). A 20% increase for an employee at West Metro Fire Protection District would equal an additional 44.8 hours each month, or almost two full shifts.

To prevent excessive use of overtime the West Metro Fire Protection District established the position of Staffing Officer for the fiscal year 1999. This position, filled by a captain, will be charged

with the responsibility to control the daily staffing of the department. These hours will be spread out across the first grade firefighter population to ensure that fatigue and abuse will not occur.

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PROCEDURES

The idea of using overtime in lieu of hiring to meet staffing needs was first presented by Assistant Chief David Barnt, as he questioned the direction of the District's hiring policy. These questions were further discussed with all of the District Chiefs, who unanimously agreed that a study was needed (personal communication, June 4, 1998).

The research procedures used in preparing this report were literature reviews and many conversations and studies conducted with Mr. Scott Myers, Finance Manager, regarding the staffing records compiled by Ms. Kathy Miller, Administrative Secretary. Records detailing the monthly staffing levels between July, 1997, and June, 1998, for the time lost to leaves and training were evaluated. From this evaluation a method was derived to determine at what point the use of overtime would be more financially beneficial to the department, than hiring to meet minimum staffing levels..

A survey was sent to all 158 apprentice fire-medics, firefighters and firefighter/paramedics, regarding their support of a proposed overtime program. The officers and engineers within the organization were excluded from this survey because the overtime program will be used to establish a fourth firefighter on the District's apparatus. Of the District's 158 apprentices and firefighters, 117 or 74%, responded to the questionnaire (See Appendix B).

The purpose of this applied research project is to determine whether, and at what point, the West Metro Fire Protection District should establish a program to utilize firefighters working overtime, as opposed to the continuation of hiring new personnel, to most effectively achieve the desired level of staffing. Four questions asked are:

1. Would an overtime program, rather than hiring, be beneficial to the West Metro Fire Protection District in achieving the department's operational staffing levels?
2. At what staffing level would it be advantageous for the District to implement an overtime program?
3. Should the overtime program be mandatory or voluntary for the firefighters of the District?
4. Would the firefighters of the department be supportive of an overtime program?

Project Limitations

Most of the literature found on this subject involved private industry. Relatively little information was found regarding public service agencies, specifically the fire service.

The District purchased a computer aided dispatch system five years ago that was to assist the department in record keeping, including the daily staffing assignments of line personnel. To date, the staffing module has not been successfully installed, requiring District Chiefs to manually maintain staffing records. Records regarding vacation, sick, injury, and military leaves are well documented. However, this study discovered that leaves related to administrative, school and department business were loosely documented, especially those of less than 12 hours. The lack of consistent and detailed record keeping in an automated system was a limitation for this study.

Definition of Terms

Compensation of Employees - The income accruing to employees for enumeration for their work.

Overtime hours - Paid hours beyond contractually agreed weekly hours.

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Quasi-fixed costs - Employee related rather than hours related, and thus do not vary with overtime hours of work.

RESULTS

The results of this project were developed from a research of literature, review of staffing data, and study of costs and District finances with Mr. Scott Myers, Financial Manager.

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Answers to Research Questions

1) Would an overtime program, rather than hiring, be beneficial to the West Metro Fire Protection District in achieving the department's operational staffing levels?

For the past four years the District has used an overhead factor of 10.03% for staffing analysis. This factor is used to determine the number of personnel necessary to cover vacations, sick and other leaves, over and above the normal staffing levels. Based on this factor, a full staffing level of 264, or 88 per shift, was the hiring goal set for the year 2006, to meet N.F.P.A. 1500 Standard staffing. However, this study determined that this number was no longer valid and that a factor of 17% was more realistic. This increases the staffing goal to 279 or 93 personnel per shift, and would require hiring 37 more firefighters by 2006. Mr. Scott Myers concluded that this will result in an additional \$2 million in funding, which is unavailable today (personal communication, October 16, 1998.) This will also

increase the hiring number each year if the District is to meet the Chief of Department's time-line for the
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year 2006.

It was found within this study that using an overtime program, rather than hiring, would be beneficial to the District. As noted, the growth of the department and the loss of experienced firefighters due to the pension buy out program, has resulted in 61% of the line staff having five or less years experience. Continued hiring at the rate achieved over the past four years will only increase this percentage. The District Chiefs of the department believe that an overtime program will alleviate the problems associated with this inexperience, including poor tactical and personnel management decisions. Overtime would be a method to develop experience in our young officers, and may give the department time to "catch up" to the changes growth has caused (personal communication, Oct. 1, 1998).

The percentage cost of overtime benefits was compared to that of new employee benefits. The factors included pension, health, life and disability insurance, medicare, uniform and workers compensation. The difference in benefit percentages was 13.10% in favor of overtime. Additionally, the hourly cost of overtime was compared to the hourly cost of a new employee, based on a 24 hour shift. In this case, the cost of a new firefighter/paramedic (FF/P) was \$164.84 less than the cost of an overtime FF/P for a 24 hour period. In a projected analysis, examining the various staffing numbers and configurations (see Appendix A) it was discovered that use of an overtime program would be financially beneficial to the District.

2) At what staffing level would it be advantageous for the District to implement an overtime program?

Mr. Scott Myers examined a number of proposed staffing scenarios. These scenarios considered the benefit percentages and hourly costs of overtime staffing and those associated costs with

new hires, to achieve various assigned staffing numbers in order to meet the minimum of 80 personnel as
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addressed by the N.F.P.A. 1500 Standard.

An 11 month staffing study found that the District was understaffed a total of 1,217 shifts out of a possible 25,574 shifts. Based on the current (1998) minimum staffing of 65 per day (over a 333 day period) the formula in Table 1 was used.

Table 1

Hourly Cost of Overtime		Hourly Cost of New FF/P	
Hourly cost of a FF/P	\$ 15.80		\$ 15.80
x Variable benefits	13.16%		26.26%
x Overtime rate of	150%		100%
= Total Cost Per Hour	\$ 26.82		\$ 19.95
x Hours per shift	24		24
= Total Cost Per Shift	\$643.64		\$478.80

The analysis determined that 92 firefighters per shift was the break point between hiring and the need to begin the use of an overtime personnel program. Ninety-two represents a 15% overhead factor for the 240 firefighters needed to meet staffing requirements. Any coverage for leaves over this 15% will require the use of overtime personnel to realize any benefits. (See Table 2). For comparison purposes, other staffing levels were used in the formula and the costs for each figure are compared below:

Table 2.

Actual	#shifts	Total cost of	Total cost	Savings (cost)	Total	Total cost	Net
Assigned	under	assigned	of 92 per	in O.T. cost	addition	(Savings) of	Savings
Staffing	staffed	staffing	shift		(less)	Add. Staff	(cost)

					over 92		33
85	3025	\$1,946,996	\$783,304	(\$1,163,692)	(7)	(\$1,116,073)	(\$47,619)
89	1948	1,253,801	783,304	(470,497)	(3)	(478,317)	7,820
90	1699	1,093,536	783,304	(310,232)	(2)	(318,878)	8,646
91	1466	943,569	783,304	(160,265)	(1)	(159,439)	(826)
92	1217	783,304	783,304	0	0	0	0
93	1005	646,853	783,304	136,451	1	159,439	(22,988)
96	556	357,861	783,304	425,443	4	637,756	(212,313)

(See Appendix A)

Additionally, the overtime program may begin as early as 1999, by applying the information listed above. The approved staffing level for 1999 is set at 82 firefighters per shift with a minimum number of 66 firefighters required. Using the 15% overhead figure that determines the number above which it is beneficial to use overtime, 76 firefighters per shift are indicated. This leaves 6 additional firefighters available per shift. The department could increase its minimum staffing number for 1999, to 72 firefighters per shift. With an overhead figure of 15%, 82.8 firefighters per shift are required. Overtime would then be utilized when more than 10 firefighters per shift were on leave.

3) Should the overtime program be mandatory or voluntary for the firefighters of the District?

This study has found that the overtime program should be mandatory for the firefighters of the District. The scheduled and controlled program will provide the greatest savings to the District. On

January 1st, 1999, the District will assign a captain to the position of Staffing Officer. This individual is ³³ supervised by the Deputy Assistant Chief - Operations. The Staffing Captain will be responsible for the management of all staffing policies, and the scheduling of personnel and apparatus on a day-to-day basis. Based on the literature review, it is essential to maintain control of overtime usage and provide for the fair assignment of overtime to individuals within the rank of Apprentice and First Grade Firefighter.

The survey sent to the Apprentices and First Grade Firefighters found that 84 out of 102, or 82% of the respondents to this question favored an overtime program *scheduled* by the Staffing Officer. (See Appendix B)

4.) Would the firefighters of the department be supportive of an overtime program?

The firefighters of the District are supportive of an overtime program. The survey sent to the Apprentice and First Grade Firefighters of District established that 105 respondents out of 111 (94.5%) support overtime staffing to meet the N.F.P.A. Standard. Of the respondents, 82% wanted to see more overtime than hiring, as a means of accomplishing our staffing goals. When asked if they would participate in an overtime program, 110 respondents (95.6%) stated that they would.

Those responding to the survey also indicated that they would approve of between 2-20 shifts of overtime, per person, on a quarterly basis. Furthermore, the respondents stated they would work the same number of overtime shifts on a semi-annual basis. (See Appendix B)

The response to the survey indicates that an overtime schedule can be adequately filled to achieve the District's staffing goals. This will also help the District to avoid the possibility and dangers of fatigued, overworked firefighters.

DISCUSSION

By reviewing the staffing records available for this research, it was discovered that the

33

administration of the District has limited control in the leaves taken by its employees. The amount of vacation time granted to employees is a product of negotiations between the labor union and the Board of Directors. A restriction has been placed on the number of personnel that may be on vacation on any shift, to eight. Sick leave programs which have been implemented have reduced usage (and abuse of sick leave) to its lowest per employee rate, in five years. These “fixed” leaves can be covered by the overhead staffing percentage, built into the hiring needs of the District. The remaining leaves, i.e., military, administration, funeral and emergency, are not scheduled nor are they adequately anticipated by the department, currently. These costs have been defined as quasi-fixed costs and are prevalent in the fire service as they are in the private sector. Quasi-fixed costs are vacation pay, holiday pay, sick leave, and hiring, rather than hours related, in the sense that they do not vary with overtime hours. Ehrenberg and Schumann (1982) state that an increase in these quasi-fixed costs reduce employers marginal costs of working their employees relative to their costs of hiring additional employees. There are also situations in manufacturing called disequilibrium phenomena. This is described as times of rush orders, seasonal demand, and mechanical failures (Ehrenberg and Schumann, 1982). In the fire service, disequilibrium phenomena may be described as times of disaster, situations of heavy call load, and requests of a special nature that require the use of overtime.

Hiring and training costs for new employees is steering the District to study the financial benefits of an overtime program. The single largest expense is training. There are three types of training costs in the fire service that relate to private industry. These are: 1) The explicit cost of employing individuals to serve as trainers and the cost of materials used during the training process; 2) The implicit or opportunity costs of the trainee’s time (while individuals are undergoing training they are not producing as much

output as they could if all of their time was devoted to production activities); and 3) The opportunity costs of using capital equipment and experienced employees to do the training in less formal training situations (Flanagan et al., 1984). It costs the District approximately \$25,000 to train a new employee prior to their being assigned to a shift or station. 33

In conducting research on this subject, it was found that the cost of recruitment, testing, hiring and training is minor when factored out across an employee's career. It is calculated that a firefighter who has a 25 year career will spend 75,925 hours on duty. If the individual remains a first grade firefighter, the cost of all training, including the fire academy and paramedic training, while still receiving a salary, equates to approximately \$3.00 per hour. This seems to be a minimal cost. This agrees with Flanagan et al. (1984) who writes that hiring and training costs are usually heavily concentrated in the initial periods of employment and then do not recur. Later on, however, these early "investments" in hiring and training raise the productivity of employees. Once having made the investment, it is cheaper for the firm to continue hiring its previous workers than to hire, at the same wage rate, new ones (who would have to be trained).

This study showed that the department has a choice in how to staff fire apparatus between additional hours from present employees at premium rates, or the employment of new workers at straight time (Myers, 1965).

Since we do not have a crystal ball, it is unknown what the extended future holds in the way of funding for the West Metro Fire Protection District. However, we must guard against cutting services that have been afforded through the use of overtime, as has been the case in other localities. Since its overtime budget was trimmed, Fairfax, Virginia Police no longer automatically provide officers for fairs and other community events. The fire department has cut out CPR classes for the community and

eliminated some committees that dealt with fire issues (Perlman, 1997). The growing cost of hiring and ³³ training, fringe benefits and government mandated insurance premiums in total compensation has weakened the deterrent effect of the Fair Labor Standard Act and will make the use of overtime more attractive in the future (Flanagan, et al., 1987).

The combination hiring / overtime staffing plan will reap rewards for many. The advantage of this program is that it's tangible; it's also flexible as situations and conditions dictate. It offers the District's Board of Directors, Administration and Operations Divisions a clear direction in attaining compliance with the N.F.P.A. 1500 Standard.

A combination hiring / overtime program allows the District to best utilize its resources and reach its staffing goals, while remaining cognizant of costs. This is a definite benefit to the District resident and taxpayer.

Lower wage earners (Apprentices and First Grade Firefighters) are given the opportunity to augment their paycheck periodically by being permitted to work overtime. This program's improved staffing allows for better coverage on shifts, at stations, and where it really counts — emergency scenes. From a safety standpoint, everybody wins!

RECOMMENDATIONS

The recommendations made as a result of this project include the following:

1. The District must be more diligent in tracking staffing hours and functions.

Staffing and its associated costs consume 83% of the District's budget. Data on the expenditures of these budgeted dollars must be clearly identified. It is imperative that the District investigate and purchase automated data programs that will provide the Administration with the information needed to make the best decisions regarding staffing and expenditures, as soon as possible.

2. The District should stay committed to its program to achieve four member minimum staffing on all fire apparatus, by continuing to hire at least three firefighters per year, **plus** fill vacancies necessary to compensate for attrition. This may extend the compliance time-line by four years, to the year 2010.

3. The District should begin to establish an overtime program through the Staffing Office, using the minimum staffing number of 66, and an approved staffing level of 82 per shift as set forth for 1999. The Staffing Officer must adjust for the new overhead calculation of 15%, and be directed to use overtime firefighters for anything above this figure. Furthermore, it is recommended that this program be mandatory in nature, scheduling all firefighters in advance.

4. The District, through the Staffing Office, must gain better control of requested leaves. For instance, compensatory time (comp time) could be better managed by requiring each request for comp time to be accompanied by a trade time form. If a pre-approved comp. time could not be covered without the use of overtime, the trade time member would be called into work.

5. The District must increase its overhead figure to 17% of the minimum staffing approved at any one time. This percentage, as opposed to the 10.3% currently in use, gives a more accurate picture for planning purposes.

6. This study recommends that the District set its goal to achieve a staffing level of 93 firefighters per shift. This will provide for the minimum 80 firefighters plus an overhead of 17% to handle vacations and other leaves. Staffing required over 15%, or 92 firefighters, can be achieved through the use of the mandatory overtime staffing program. Following this recommendation will allow the District to achieve full staffing, without overstaffing.

Research and staffing evaluation must continue on an annual basis as the District improves its 33
record keeping process and data bases. As the yearly mandated minimum staffing number increases,
and the approved staffing numbers per shift change, the study will be affected. Any changes in the
organization, such as additional stations and apparatus, will impact these findings. Therefore, in the year
1999, with an approved staffing level of 82 firefighters per shift and a minimum staffing requirement of
66, there is more than an overhead of 17%. The minimum staffing requirement may be increased to 68
and any under staffing caused by this adjustment may be covered by the overtime program.

Additionally, the District Administration must find avenues to coordinate and contain other
leaves. Paramedic schools must be scheduled during periods of lighter vacation use, during fall and
winter months. We must turn our attention towards technology and find methods to provide training
programs in each station rather than having fire crews out of service at remote locations. This will assist
in keeping firefighters in the District and available for alarms and other fire district related work.

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APPENDIX A

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	Comp Time Used	Vacations	Sick Leave	Injury Leave	Military Leave	Light Duty	Admin. Leave	Dept. Business	School	Funeral Leave	Emergency Leave	Suspend	TOTAL	Additional NFPA 1500 Manning	Actual Assigned Staffing	Available Staffing	Minimum Staffing	Overage/Underage
Shift A	6/27/98	1	7			1			1				11	13.0	91	78.0	80	-2
C	6/28/98	4	9	1	1		1		2				18	21.0	91	70.0	80	-10
B	6/29/98		8						1				9	10.0	91	81.0	80	1
C	6/30/98		10	3	1		1		1		1		18	21.0	91	70.0	80	-10
Grand Totals	259	1992	408	106	15	354	49	309	788	7	69	1	4357	5026		25277		-1343
Overtime																		
Benefit																		
Percentage																		
Pension			9.50%						15.80				Cost of Overtime:					
Health Insurance			0.00%						13.16%				Number of Shifts Under Staffed					
Life			0.00%						150%				Variable Cost of FFIP Overtime Per Shift					
Disability			0.00%						26.82				Total Cost at above assigned staffing					
Medicare			1.45%						24				Total Cost at current (92) assigned					
Uniform			0.00%						\$643.64				Savings (Cost) in OT Cost					
Workmens Com			2.21%										Cost of Extra Assigned Staffing:					
			13.16%										Cost of FFIP for One Shift					
													Total Additional (Less) over 92 Assigned					
													Total Shifts Analyzed					
													Total Cost (Savings) of Additional Staff					
New Employee																		
Benefit																		
Percentage																		
Pension			9.50%						\$ 15.80				Net Savings (Cost)					
Health Insurance			9.94%						26.26%									
Life			0.02%						100%									
Disability			1.20%						\$ 19.95									
Medicare			1.45%						24									
Uniform			0.84%						\$478.80									
Workmens Com			3.31%															
			26.26%															

[illegible]

		Comp.	Time		Sick	Injury	Military	Light	Admin.	Dept.	Funeral		Emergency		Additional		Actual	Available		Minimum	Overage/
Shift	Date	Used	Vacations	Leave	Leave	Leave	Leave	Duty	Leave	Business	School	Leave	Leave	Suspend	TOTAL	NFPA 1500	Manning	Staffing	Staffing	Staffing	Underage
A	6/27/98	1	7				1				1				11	13.0		93	80.0	80	0
C	6/28/98	4	9	1	1		1	1		2				18	18	21.0		93	72.0	80	-8
B	6/29/98		8							1				9	9	11.0		93	82.0	80	2
C	6/30/98		10	3	1		1	1		1	1		1	18	18	21.0		93	72.0	80	-8
Grand Totals	259	1992	408	106	106	15	354	49	309	788	7	69	1	4357	5121			25648			-773
Overtime Benefit Percentage																					
Hourly Cost of Overtime:																					
FFIP at @% Longevity \$ 15.80																					
Variable Benefits 13.16%																					
Overtime Rate 150%																					
Total Cost Per Hour \$ 26.82																					
Hours Per Shift 24																					
Total Cost Per Shift \$643.64																					
Pension	Cost of Extra Assigned Staffing:																				
Health Insurance	Cost of FFIP for One Shift																				
Life	Total Additional (Less) over 92 Assigned																				
Disability	Total Shifts Analyzed																				
Medicare	Total Cost (Savings) of Additional Staff																				
Uniform	Net Savings (Cost)																				
Workmens Com	(\$22,986)																				
26.26%																					

APPENDIX B

MEMORANDUM

TO: First Grade Firefighters
Apprentice Fire Medics

FROM: DAC Robert H. Brown

RE: Questionnaire for Executive Fire Officer (EFO) National Fire Academy Project

DATE: September 28, 1998

Below is a questionnaire I developed in conjunction with my EFO Project. Please complete the questionnaire and return to Kathy Miller at Irongate by ***October 15, 1998***.

My study addresses the issue of establishing and maintaining 1500 staffing guidelines (i.e. four member crews - officer, engineer and two (2) firefighters). I am conducting a study using overtime vs new hires to accomplish this goal. This questionnaire is only for the purposes of this study and is ***not*** a proposal for WMFPD at this time. Names are not requested nor is a commitment expected for participating in this questionnaire.

Please return the Questionnaire portion only. Thank you for your help in this matter.

QUESTIONNAIRE

1. Do you support the issue of overtime staffing to support the NFPA standard?
Yes: ____ No: ____
2. Do you support a combination of overtime and new hires to support the NFPA standard?
Yes: ____ No: ____
3. Would you participate in an overtime program, if established?
Yes: ____ No: ____
4. How many shifts per month would you sign up for on a
a) Quarterly basis ____ b) Semi-annually basis ____
5. Do you support a system of overtime scheduled by the Staffing Officer?
Yes: ____ No: ____